

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Andrew J. Lagatta on August 26, 2009.

2. The application has been amended as follows:

IN THE CLAIMS:

- Claims 1, 7, 14 and 16 are amended as follows:
 1. (Currently Amended) A WDM optical system comprising:
 - first and second WDM's;
 - an optical link for transmit and receive signals for each WDM;
 - each WDM including circuitry including a multiplexer and a demultiplexer;
 - each WDM including a plurality of separate optical to electrical converters connecting to a backplane at an electrical interface including a card edge connector, each optical to electrical converter removably mated with the circuitry and configured to transmit and receive common format signals and operate at a separate wavelength, the common format signals having the same format for each of the plurality of separate optical to electrical converters, each electrical interface including an identification feature configured to allow identification of an optical to electrical converter operable at a desired wavelength;

each WDM including a plurality of separate electrical to electrical converters, each directly and removably mated with one of the optical to electrical converters at a card edge connector to receive power and to send and receive common format signals, each electrical to electrical converter including input and output signal locations and configured to provide conversion between native protocol media signals and the common format signals-;

a CPU card connected to the backplane of the first WDM at a card edge connector, the CPU card configured to:

send command and control signals to each optical to electrical converter and each electrical to electrical converter in the first WDM; and

communicate with the second WDM.

7. (Currently Amended) A WDM chassis comprising:

a backplane including an input power port, a control signal port, and a plurality of optical interface ports for interfacing with an optical to electrical conversion card, each optical interface port including a power port, a control signal port, and at least one optical port, the backplane further including an identification feature configured to allow identification of an optical to electrical converter card operable at a desired wavelength;

a plurality of optical to electrical cards each including a backplane interface portion for mating with the optical interface port and including a power port, a control signal port, and at least one optical port, each optical to electrical card including optical to electrical conversion circuitry for converting between

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common format signals and optical signals, each optical to electrical card including an electrical interface port including a power port, a control signal port, and at least one electrical port, the common format signals having the same format for each of the plurality of separate optical to electrical converter cards;

a plurality of electrical to electrical cards each including a rear interface portion including a card edge connector for removably mating directly with the electrical interface port and including a power port, a control signal port, and at least one electrical port, each electrical to electrical card including electrical to electrical conversion circuitry for converting between native protocol media signals and common format signals, each electrical to electrical card including a media interface port including at least one main signal port;

a CPU card connected to the backplane at a card edge connector, the CPU card configured to:

send command and control signals to each optical to electrical card and each electrical to electrical card; and

communicate with a WDM system remote from the WDM chassis.

14. (Currently Amended) A WDM optical system comprising:

a first WDM including a chassis and circuitry including a multiplexer;

a second WDM including a chassis and circuitry including a demultiplexer;

an optical link for transmitting multiplexed optical signals from the first WDM for receipt by the second WDM;

each WDM including a plurality of separate optical to electrical converter cards received by each chassis, each optical to electrical converter card connecting to a backplane in the chassis and operating at a separate wavelength to transmit and receive a main signal, each optical to electrical card removably mated with the circuitry via the backplane, the backplane including an identification feature configured to allow identification of the optical to electrical converter cards as operable at a desired wavelength;

each WDM including a plurality of separate main signal to electrical converter cards received by each chassis, each main signal to electrical converter card removably and directly mated with one of the optical to electrical converter cards at a card edge connector to receive power and to communicate via the main signal, each main signal to electrical converter card including a main signal port and configured to convert between the main signal and a native protocol media signal, the main signals having the same format for each of the plurality of separate optical to electrical converters;

wherein the first WDM further includes a CPU card connected to the backplane at a card edge connector, the CPU card configured to:

send command and control signals to each optical to electrical converter card and each electrical to electrical converter card; and
communicate with the second WDM.

16. (Currently Amended) A method of optical system management comprising:

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providing multiplexing and demultiplexing circuitry for a multi-channel signal system;

mating a plurality of optical to electrical converter cards to the circuitry via a backplane, each optical to electrical converter card selected to transmit and receive optical signals at a distinct wavelength of light relative to the other optical to electrical converter cards of the multi-channel system, the backplane including an identification feature configured to allow identification of the optical to electrical converter cards as operable at a desired wavelength;

removably and directly mating an electrical to electrical converter card to a selected one of the optical to electrical converter cards at a card edge connector to receive power and to communicate with the selected one of the optical to electrical converter cards, wherein the electrical to electrical converter card transmits and receives native protocol media signals in a first format, and converts the signals to a second common format signal, wherein the signals of the second electrical format are converted to optical signals at the distinct wavelength of light of the selected optical to electrical converter card, the common format signals having the same format for each of the plurality of separate optical to electrical converter cards;

mating a CPU card to the backplane, the CPU card configured to send command and control signals to each optical to electrical converter card and to the electrical to electrical converter card and communicate with a far-end WDM.

- Claims 20-23 have been cancelled.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LI LIU whose telephone number is (571)270-1084. The examiner can normally be reached on Monday-Friday, 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. L./
Examiner, Art Unit 2613
August 26, 2009

/Kenneth N Vanderpuye/
Supervisory Patent Examiner, Art Unit 2613